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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/943,786	08/31/2001	Michel Shane Simpson	NO078/100002	1045

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EXAMINER	
LY, ANH	

ART UNIT	PAPER NUMBER
2172	9

DATE MAILED: 04/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/943,786	SIMPSON ET AL.	
	Examiner	Art Unit	
	Anh Ly	2172	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 February 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *#5 & #6*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is response to Applicants' Preliminary Amendment filed on 12/17/2001.

2. Claims 1-20 are pending in this application.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-7, 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pub. No.: US 2001/0039549 of Eng et al. (hereinafter Eng) in view of US Patent No. 6,501,491 issued to Brown et al. (hereinafter Brown).

With respect to claim 1, Eng discloses one or more directories comprising a plurality of directory objects each having one or more object attributes and data (the LDAP directory containing a plurality of classes of objects and their attribute types: Page 1, section 0018, Page 2, section 0023 and 0026);

a directory shell referencing said one or more directories (directory manager using to search or retrieving the classes of objects stored in the directories: Page 1, section 0017 and Page 2, section 0020);

one or more categories in said directory shell, each of said categories being associated with one or more directory objects and at least a portion of the associated object attributes (see fig. 1A and fig. 2: classes of objects: Page 1, section 0004 and Page 2, section 0022).

Eng teaches LDAP, directories where the classes of objects (or categories of objects) are stored, directory manager as directory shell using to retrieve or search or query the directories. Eng does not explicitly teach a query interface operable to query the categories in the directory shell and a directory interface operable to send a search request to the one or more directories in accordance with the query, and receive data from the one or more directories that satisfies the search request.

However, Brown teaches the query form that is recognizable by the directory service in order to query the objects or classes of objects storing in the directories to

view via user interface (see figs. 6, 8A and 10, col. 8, lines 1-42 and col. 13, lines 20-30).

Therefore, It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Eng with the teachings of Brown so as to obtain the classes of objects storing in the directories by using the query form or search request via user interface (col. 8, lines 1-60 and col. 13, lines 20-30) from where the network users have capability to view the desired directories or objects via the network.

With respect to claim 2, Eng teaches wherein at least one of the directories are LDAP compliant (directory service such as x.500: Page 1, section 0004).

With respect to claim 3, Eng teaches one or more directory drivers each comprising schema data for one or more of said directories (schema of directory; Page 1, section 0017 and section 0018).

With respect to claim 4, Eng teaches wherein said one or more directories are managed on a plurality of servers in communication with a computer onto which the directory shell is loaded (LDAP servers or multiple computer servers: Page 2, section 0024).

With respect to claims 5-6, Eng discloses a computer system as discussed in claim1.

Eng teaches LDAP, directories where the classes of objects (or categories of objects) are stored, directory manager as directory shell using to retrieve or search or

query the directories and Eng discloses LDAP directory with the Internet (Page 2, section 0024). Eng does not explicitly teach wherein the query interface is formatted in HTML and an administrator utility to configure the categories and the query interface.

However, Brown teaches the HTML format page (col. 10, lines 1-18) and the administrator to view the classes of objects (col. 2, lines 17-54, col. 3, lines 10-15 and col. 4, lines 17-28).

Therefore, It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Eng with the teachings of Brown so as to obtain the classes of objects storing in the directories by using the query form or search request via user interface (col. 8, lines 1-60 and col. 13, lines 20-30) from where the network users have capability to view the desired directories or objects via the network.

With respect to claim 7, Eng teaches creating a directory shell comprising one or more categories (the directories storing the classes of objects are created (Page 3, section 0029, 0030 and 0031);

associating said directory shell with one or more directories, wherein each directory comprises a plurality of directory objects attributes having object attributes and attribute data (the LDAP directory containing a plurality of classes of objects and their attribute types: Page 1, section 0018, Page 2, section 0023 and 0026 and directory manager using to search or retrieving the classes of objects stored in the directories: Page 1, section 0017 and Page 2, section 0020);

associating each of said categories with one or more directory objects and at least a portion of the object attributes corresponding to the directory objects (see fig. 1A and fig. 2: classes of objects: Page 1, section 0004 and Page 2, section 0022).

Eng teaches LDAP, directories where the classes of objects (or categories of objects) are stored, directory manager as directory shell using to retrieve or search or query the directories and Eng discloses LDAP directory with the Internet (Page 2, section 0024). Eng does not explicitly teach requesting a search for query data against a selected category; and searching the one or more directories for the query data against the attribute data corresponding to the directory objects and object attributes associated with the selected category.

However, Brown teaches the query form that is recognizable by the directory service in order to query the objects or classes of objects storing in the directories to view via user interface (see figs. 6, 8A and 10, col. 8, lines 1-42 and col. 13, lines 20-30).

Therefore, It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Eng with the teachings of Brown so as to obtain the classes of objects storing in the directories by using the query form or search request via user interface (col. 8, lines 1-60 and col. 13, lines 20-30) from where the network users have capability to view the desired directories or objects via the network.

With respect to claims 9-10, Eng discloses a method as discussed in claim 7.

Eng teaches LDAP, directories where the classes of objects (or categories of objects) are stored, directory manager as directory shell using to retrieve or search or query the directories and Eng discloses LDAP directory with the Internet (Page 2, section 0024). Eng does not explicitly teach wherein requesting a search includes formatting a Boolean search and wherein the creating, associating with directories, associating with directory objects, requesting, and searching are performed sequentially.

However, Brown teaches searching with the Boolean value and the search path (col. 10, lines 56-67 and col. 11, lines 1-32).

Therefore, It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Eng with the teachings of Brown so as to obtain the Boolean search for searching directory and the classes of objects storing in the directories by using the query form or search request via user interface (col. 8, lines 1-60 and col. 13, lines 20-30) from where the network users have capability to view the desired directories or objects via the network.

Claim 11 is essentially the same as claim 7 except that it is directed to a computer readable medium rather than a method, and is rejected for the same reason as applied to the claim 7 hereinabove.

Claim 12 is essentially the same as claim 7 except that it is directed to a propagated signal rather than a method, and is rejected for the same reason as applied to the claim 7 hereinabove.

With respect to claim 13, Eng teaches one or more directories, each directory comprising a plurality of classes with attributes and a plurality of objects instantiated

from said classes, wherein said objects comprise a plurality of data associated with the attributes; a directory shell associated with said one or more directories; a plurality of categories associated with said directory shell, wherein each category corresponds to one or more classes in the one or more directories; a plurality of category attributes associated with each category, wherein each category attribute corresponds to an attribute of the class corresponding to the associated category ((Page 3, section 0029, 0030 and 0031; the LDAP directory containing a plurality of classes of objects and their attribute types: Page 1, section 0018, Page 2, section 0023 and 0026 and directory manager using to search or retrieving the classes of objects stored in the directories: Page 1, section 0017 and Page 2, section 0020; and see fig. 1A and fig. 2: classes of objects: Page 1, section 0004 and Page 2, section 0022).

Eng teaches LDAP, directories where the classes of objects (or categories of objects) are stored, directory manager as directory shell using to retrieve or search or query the directories and Eng discloses LDAP directory with the Internet (Page 2, section 0024). Eng does not explicitly teach wherein the directory shell is querable against the categories to search and retrieve data of the objects in the one or more directories.

However, Brown teaches the query form that is recognizable by the directory service in order to query the objects or classes of objects storing in the directories to view via user interface (see figs. 6, 8A and 10, col. 8, lines 1-42 and col. 13, lines 20-30).

Therefore, It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Eng with the teachings of Brown so as to obtain the classes of objects storing in the directories by using the query form or search request via user interface (col. 8, lines 1-60 and col. 13, lines 20-30) from where the network users have capability to view the desired directories or objects via the network.

With respect to claim 14-20, Eng discloses wherein at least one of the one or more directories is a distributed directory (LDAP directory is a distributed directory over the network: page 1, section 0004); wherein at least one of the one or more directories is LDAP compliant (LDAP directory; Page 1, section 0004); wherein at least one of the one or more directories is a hierarchical directory (directory service from LDAP is a X.500 directory standard that is a hierarchical directory); wherein the categories and category attributes are object oriented programming classes (object-oriented model: Page 1, section 0017, Page 2, section 0020 and 0027); wherein the category class is an ObjectScheme Java class and the category attribute class is an AttributeScheme Java class (Java objects: see Page 3. sections 0030, 0031, 0032 and 0033); wherein the directory shell includes one or more directory references each associated with at least one of the one or more directories (LDAP directory having directory service using to search directories in the network: Page 1, section 0019 and Page 2, section 0022); and wherein the one or more directory references each have a unique set of associated categories (folds of classes of objects type are unique in the directory: see figs> 1A and 2).

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pub. No.: US 2001/0039549 of Eng et al. (hereinafter Eng) in view of US Patent No. 6,501,491 issued to Brown et al. (hereinafter Brown) and further in view of Pub. No. US 2001/0034733 of Prompt et al. (hereinafter Prompt).

With respect to claim 8, Eng in view of Brown discloses a method as discussed in claim 7.

Eng teaches LDAP, directories where the classes of objects (or categories of objects) are stored, directory manager as directory shell using to retrieve or search or query the directories and Eng discloses LDAP directory with the Internet (Page 2, section 0024). Eng does not explicitly teach requesting a search for query data against a selected category; and searching the one or more directories for the query data against the attribute data corresponding to the directory objects and object attributes associated with the selected category. Brown teaches the query form that is recognizable by the directory service in order to query the objects or classes of objects storing in the directories to view via user interface (see figs. 6, 8A and 10, col. 8, lines 1-42 and col. 13, lines 20-30). In combination, Eng and Brown does not explicitly teach wherein associating categories includes mapping category attributes with object attributes.

However, Prompt teaches mapping the objects in the virtual directory and relational database objects (Page 3, section 0021 and section 0025).
Therefore, It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Eng in view of Brown with the

teachings of Prompt so as to obtain the mapping the objects in the directory as well as in the relational database. This combination would have made the system, which has LDAP directory having method for the classes of objects storing in the directories by using the query form or search request via user interface (col. 8, lines 1-60 and col. 13, lines 20-30) and being able to search, to retrieve or to query the classes of objects (such as each folder in the directory: printer folder or scanner folder) and being able to view the desired directories or objects via the network.

Contact Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh Ly whose telephone number is 703 306-4527 or via E-Mail: ANH.LY@USPTO.GOV. The examiner can normally be reached on 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene, can be reached on 703 305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703 746-7239.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to: Central Office (703) 872-9306 (Central Official Fax Number)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Fourth Floor (receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-6606 or 703 305-3900.

JEAN M. CORRIELUS
PRIMARY EXAMINER

ANH LY
MAR. 26th, 2004